Title (en)

DEVICE FOR DETERMINING ILLUMINATION DISTRIBUTIONS FOR IMRT

Title (de)

VORRICHTUNG ZUR BESTIMMUNG DER BELEUCHTUNGSVERTEILUNG FÜR IMRT

Title (fr)

DISPOSITIF POUR LA DÉTERMINATION DE DISTRIBUTIONS D'ÉCLAIRAGE POUR IMRT

Publication

EP 3003483 A1 20160413 (EN)

Application

EP 14725093 A 20140514

Priority

- EP 13169709 A 20130529
- EP 2014059807 W 20140514
- EP 14725093 A 20140514

Abstract (en)

[origin: WO2014191204A1] The invention relates to a device for determining illumination distributions (18) for IMRT. A layered graph structure is used, which considers which extensions of an illumination distribution along a respective line and thus which illumination distributions are realizable, for determining extensions for the illumination distributions. Moreover, second weights defining fluences of the illumination distributions are determined such that a deviation between a provided fluence map and a fluence map formed by a combination of illumination distributions, which are defined by the respective determined extensions and the respective second weight, is minimized. This determination procedure leads to illumination distributions, which very well correspond to the provided fluence map and which are automatically realizable by the radiation device. This leads to an improved IMRT, wherein a post-processing of the determined illumination distributions for ensuring that the determined illumination distributions are really realizable is not necessarily required.

IPC 8 full level

A61N 5/10 (2006.01)

CPC (source: EP US)

A61N 5/1036 (2013.01 - EP US); **A61N 5/1045** (2013.01 - US); **A61N 5/1047** (2013.01 - EP US); A61N 2005/1074 (2013.01 - US)

Citation (search report)

See references of WO 2014191204A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2014191204 A1 20141204; CN 105246549 A 20160113; CN 105246549 B 20190222; EP 3003483 A1 20160413; EP 3003483 B1 20171227; JP 2016521587 A 20160725; JP 6018327 B2 20161102; US 2016082287 A1 20160324; US 9393442 B2 20160719

DOCDB simple family (application)

EP 2014059807 W 20140514; CN 201480030578 A 20140514; EP 14725093 A 20140514; JP 2015563181 A 20140514; US 201414891074 A 20140514